

**REMARKS**

**I. Formal Matters**

Applicant thanks the Examiner for initialing and returning the SB/08 Forms submitted with the Information Disclosure Statement of October 20, 2005, indicating that the documents cited therein have been considered. Applicant also thanks the Examiner for acknowledging the foreign priority claim and receipt of the priority document.

**II. Status of the Application**

Claims 1-22 are all the claims pending the application, however claims 18-22 have been withdrawn from consideration. Claims 1-4, 12 and 14-16 are allowed. Claims 13 and 17 have been rejected under 35 U.S.C. § 101 as allegedly not directed to statutory subject matter. However, the Examiner has indicated that claims 13 and 17 would be allowed if the program recited in such claims were stored or embedded in a computer readable medium. Claims 10-11 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 5-9 have been rejected on prior art grounds.

**III. Examiner Objections**

The Examiner has objected to the drawings under 37 C.F.R. § 1.83(a) as allegedly not showing every feature of the invention specified in the claims. Specifically, the Examiner contends that the deformed shape model producing unit, reference shape model producing unit, superimposition calculating unit and the twist angle calculating unit of claim 12 must be shown in the drawings. In addition, the main wire member deformed shape model producing unit, main

wire member reference shape model producing unit, main wire member angle calculating unit, sub wire member deformed shape model producing unit, sub wire member reference shape model producing unit, sub wire member angle calculating unit and the twist angle calculating unit of claim 16 must also be shown in the drawings.

By this Amendment, Applicant is canceling claims 12 and 16, thus rendering the drawing objection moot.

**IV. Rejection under 35 U.S.C. § 101**

Claims 13 and 17 have been rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. By this Amendment, Applicant is amending claims 13 and 17 to overcome the rejection as suggested by the Examiner.

**V. Rejection under 35 U.S.C. § 102(b)**

Claims 5 and 6 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,506,950 to Hughes et al. (“Hughes”).

Claim 5 recites, *inter alia*, “a deforming step of deforming the wire-like structure to a reference shape in which the main wire bundle exists in a predetermined plane, by applying shape and material properties and restraint conditions of the wire-like structure to the finite element model; and a twist angle calculating step of calculating angles which are formed by the sub wire bundles with respect to the plane, as the twist angles.” The Examiner contends that a twist limit parameter for determining the amount of twist in one wire segment when another wire segment is moved, corresponds to the claimed angle calculating step. However, Hughes fails to at least teach “calculating angles which are formed by the sub wire bundles with respect to the

plane, as twist angles.” For example, referring to Figures 6(a) and 6(b) of Hughes, when a segment not in the two-dimensional unfolding plane 60 is rotated to become coplanar with the unfolding plane 61, the adjacent wire segment 58 that is already in the unfolding plane experiences a twist. *See* Hughes at col. 5, lines 47-60. Hughes further teaches that when a segment could be rotated into the unfolding plane in one of a plurality of directions, it is generally preferable to rotate a segment into the unfolding plane by the smaller of the two angles to introduce less twist. *See* Hughes at col. 5, lines 61-67. In other words, the “twist” taught by Hughes refers to the twist in the segment adjacent to the segment that is rotated into the unfolding plane. The twist angle taught by Hughes does not correspond to the claimed twist angles “which are formed by the sub wire bundles with respect to the plane.” Accordingly, Applicant submits that claim 5 is patentable over Hughes for at least the foregoing reason.

Claim 6 recites, *inter alia*, that “the main wire bundle is linearly stretched without being twisted.” As noted above with regard to claim 5, Hughes teaches that the segment wire already in the unfolding plane 58 is twisted when an adjacent wire segment is unfolded into the unfolding plane. Hughes fails to teach or suggest that the claimed feature of “the main wire bundle is linearly stretched without being twisted.” Therefore, in addition to being patentable over Hughes by virtue of its dependency from claim 5, we would submit that claim 6 is also patentable for the foregoing reason.

#### **VI. Rejection under 35 U.S.C. § 103(a)**

Claims 7-9 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hughes in view of U.S. Patent Publ. No. 2003/0050723 to Ozaki (“Ozaki”).

Since claims 7-9 depend upon claim 5, and since Ozaki fails to cure the deficient teachings of Hughes with regard to claim 1, we propose submitting that claims 7-9 are patentable at least by virtue of their dependency.

## **VII. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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